

Water policy for A Living Landscape: The Floods and Water Bill



Natural ways to manage water can benefit wildlife and people



Snipe. The washlands of river floodplains are ideal habitat for wading birds like snipe and can also serve as natural flood storage areas. (photo: Laurie Campbell)

How can flood management help deliver A Living Landscape?

Rivers, streams, lakes, ponds, bogs and drainage ditches form a network of natural and semi-natural habitats across the UK, from mountains to sea. They are 'green' (or 'blue') corridors which run through urban areas and farmland. Crucial for wildlife, they are also key to our water supply and crop growing, and provide the essential framework for sustainable flood management. They also contribute significantly to climate change mitigation by absorbing carbon and cooling down the surrounding area.

The impacts of the 2007 and 2008 floods show that current approaches to flood management are inadequate. Our rivers have been unnaturally modified to provide land for settlement and farming; natural flood storage areas – floodplains – have been cut off by flood banks and walls. Intensive agricultural practice means water cannot soak away on arable land. Building ever higher flood defences and draining water off the land are not sustainable solutions for the 21st century. Increasing built development has added to flooding problems, by creating large areas of hard surfacing which are unable to absorb water. Damage to peatlands, through extraction and degradation, has also restricted the capacity of these habitats to retain water.

The draft Floods and Water Bill will replace out-dated legislation in England which currently focuses on flood defence rather than flood management. It should ensure that flood risk is managed across whole river catchments and that opportunities for working with natural processes to reduce flood risk are fully integrated into legislation. The recent consultation on a

What do we propose?

- * **Use the draft Floods and Water Bill** The draft Floods and Water Bill in England should provide the legal framework for 'sustainable flood management'. This will encompass all forms of flooding and ensure that solutions are drawn from a range of possible measures, using floodplains, washlands and restored upland peatlands to store water across the whole catchment (see Fig 2). It also recognises the continued importance of using flood walls where communities are at risk.
- * **Work at a catchment scale along whole rivers** The draft Bill should ensure that flood risk is managed at a catchment scale, working with natural processes to reduce the risk. Rivers should be reconnected to floodplains to allow natural flooding and create washlands which can temporarily hold flood water. This will bring opportunities to create and restore wetland habitat and aid connectivity.
- * **Use natural processes and solutions** The draft Bill should promote a sustainable flood management duty on public bodies. This would mean that anyone proposing a flood management scheme would have to consider an approach based on natural solutions, such as reconnecting floodplains. This would ensure that flood management benefits the natural environment where possible.
- * **Subsidise the delivery of flood management services** Agri-environment schemes across the UK should reward farmers for producing ecosystem services in relation to flood prevention.

proposed Floods Bill in Scotland has used this approach and it provides a good model for England and Wales. Flood risk management is the approach that Northern Ireland will be adopting as outlined in the recent 'Living with Rivers and the Sea' document published by the Department of Agriculture and Rural Development (DARD).

Sustainable flood management, in helping deliver A Living Landscape, affects the whole river catchment, from rainfall in the uplands to towns and cities where the economic effects of flooding are most severe. Rivers need reconnecting to their floodplains by creating areas known as washlands which allow natural flooding and temporary flood water storage. Unsuitable development on floodplains must stop. We need to embrace sustainable methods of dealing with surface water in built-up areas, such as using Sustainable Urban Drainage Systems (SUDS) (see Fig 1). Better management of natural systems will reduce the need for hard defences to protect homes and businesses and, in doing so, restore wetland habitat, such as wet grassland, which supports some of our most vulnerable wildlife including otters and wading birds like snipe.

Are there barriers to water policy delivering A Living Landscape?

Outdated legislative framework for flood management

Defra's policy on flood and coastal erosion risk management, Making Space for Water, supports greater use of rural land use solutions, such as the creation of washlands and wetlands, and managed realignment of coasts and rivers. However, these options have had very limited take-up because of the outdated legislative framework; the difficulties of quantifying environmental benefits; and the inadequate incentives for landowners to participate in these types of schemes. Without new legislation to address these issues, the opportunities to secure the additional wildlife benefits which land use solutions bring will be missed.

Case studies



(photo: Sheffield Wildlife Trust)

Fig 1. Manor Park SUDS Scheme –

This Sustainable Urban Drainage System on a housing estate in Sheffield is used to host community events when not in use as storage for floodwater. In June 2007, the basin filled with water, and then slowly drained away. This helped to protect 300 homes. The scheme cost £750,000 less than a traditional sewerage system and provides vital wetland habitat for wildlife in a built up area.



(photo: Montgomeryshire Wildlife Trust)

Fig 2. Pumlumon –

A catchment scale upland restoration project run by Wildlife Trusts Wales. The project area in the Cambrian mountains incorporates the headwaters of both the Rivers Severn and Wye. Changes to grazing and re-wetting of tracts of upland habitats will help to slow water down and reduce flooding in the Severn Valley.